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Abstract: *Using a large panel dataset covering 150 countries over the period 1990-2010, this paper aims to address the question of how financial structure changes when economies are liberalised and access international capital markets. Specifically, in this study, globalisation is characterised not only by trade and financial integration but also by other important aspects, such as social globalisation, political globalisation and cultural globalisation as well. Our empirical results, by and large, support globalisation's impacts on financial structure, which are, however, diverse and strongly depend on the way to measure globalisation and financial structure. The empirical finding also reveals a dynamic change in financial structure after the globalisation process, except the case of low-income countries, in which financial structure seems to be not correlated with either globalisation process or other macroeconomic variables.*

Keywords: Globalisation; Financial structure; Panel data analysis
JEL: F01; F50; G10; G29

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1. Introduction

Over the last decade, globalisation has become a phenomenal aspect of the world economy. In terms of trade globalisation, by 2008, the ratio of trade flows to the world GDP valued at around 60%, compared with less than 40% in the mid-1990s. Similarly, in terms of cross-border financial transactions, FDI net flows reached more than 6% of the world GDP, while this figure only attained to less than 2.5% in the mid-1990s.[2] By and large, globalisation process is believed to strongly affect the world economic growth in particular and all macroeconomic aspects in general. Among others, this paper pays a special attention to a possible causal link running from globalisation to the changes in financial structure, which has seemed to be ignored in the recent literature.

Unlike a knowledge lack in the impacts of globalisation on financial structure, there is a large body of research studying the links between financial structure and economic growth, the composition of industrial development, and corporate finance. The motivation of these works is to resolve the question of what kind of financial system (bank-based versus market-based financial systems) is particularly conductive to new firm formation, existing firm expansion, industrial success, and overall economic growth. According to Levine (2000), although overall financial development is robustly linked with economic growth, there is no support for either the bank-based or the market-based view. Together with a contentious theoretical debate about the comparative advantages of bank-based and market-based systems, empirical work over the last decade has begun investigating the interaction between financial development and economic integration. For instance, Baltagi et al. (2009) find that both trade and financial openness are statistically significant determinants of financial development and that financial system of closed economies can benefit most by opening up both their trade and capital accounts, while in an earlier influent contribution, Rajan and Zingales (2003) suggest that opening up one without the other could have a negative impact on financial development. However, both these well-known studies have only examined the role of trade and financial globalization in explaining the development of domestic financial systems, but not yet resolved the question of whether the globalization process motivates the change in financial structure of a country. On the other hand, globalisation is manifold dimensions: economic (including trade and financial), social, political, cultural, environmental and so forth. Although the existing literature has already examined the impacts of globalisation's financial and trade aspect, other important aspects of this process have been still unexplored.

For these reasons, our present paper tends to clarify the multidimensional impacts of globalisation on the change in domestic financial structure by using a large panel dataset of around 150 countries during the period 1990-2010. Two specific issues will be questioned, as follows:

[2] Author's computation from WDI data

- Does globalisation process influence the structure of domestic financial system?
- What kind of financial system, bank-based or market-based, is favoured in the globalisation process?

To do so, we introduce in all estimation regressions various indicators capturing the manifold dimensions of globalisation and the characteristics of a domestic financial system. We first employ the Ordinary Least Square (OLS) technique to estimate the regressions of interest. We also use the Instrumental Variable (IV) estimator that allows controlling for simultaneity bias and reverse causality running from explicative variables to financial structure. This paper is organized as follows. Section reviews the theoretical background that motivates our empirical analysis. Section 3 sets up the data. Section 4 presents our empirical strategy. Section 5 reports and analyses the empirical results. Concluding remarks are in Section 6.

2. Theoretical framework

The existing literature contributes four views in financial structure: the bank-based view; the market-based view; the finance and law view; and the financial services view. In light of *bank-based view*, the banking system plays a positive role in: *(i)* acquiring information about firms, monitoring managers and then (Diamond, 1984; Ramakrishnan and Thakor, 1984); *(ii)* identifying good projects and managing risk sharing (Allen and Gale, 1999; Bencivenga and Smith, 1991); and *(iii)* improving capital allocation to exploit economies of scale (Sirri and Tufano, 1995). However, Rajan (1992) argues that acquiring expensive information about firms allows the banking system to extract firms' large rents. To avoid losing an important part of the potential profits to banks, firms could not undertake the high-return but high-risk projects. In other worlds, the bank-based systems favor the low-risk but low-return projects, which may retard innovation and economic growth (Morck and Nakamura 1999). Thus, the market-based view stresses that financial markets will reduce the inherent inefficiencies associated with the banking systems and thereby encourages the new technologies and fosters overall economic growth. For instance, Beck and Levine (2002) support the determinant role of financial markets in promoting economic success by facilitating diversification and the customization of risk management. In contrast, financial markets' functions are criticised by the bank-based view's proponents. According to Bhide (1993), in financial markets, investors have fewer incentives to exert rigorous corporate control since they can inexpensively sell their shares. Consequently, the development of financial market can reduce corporate control and then hinder economic growth. Furthermore, greater banking systems can facilitate industrial expansion by forcing firms to reveal information and repay their debts (Rajan and Zingales, 1998).

Unlike the bank-based versus market-based debate, the law and finance view suggests that the legal system plays a determinant role in ensuring the effectiveness of the financial system and thereby facilitates innovation and growth (La Porta, Lopez-de-Silanes, Shleifer, and Vishny, 1997, 1998, 2000; henceforth LLSV). As mentioned in LLSV (2000) "…bank-versus market-centeredness is not an especially useful way to distinguish financial systems". The LLSV works instead suggest that the legal systems effectively protect outside investors, promote overall financial development and then overall national economy. Similar to the law and finance view, the financial services view developed by Merton and Bodie (1995) and Levine (1997, 2005) minimizes the importance of the bank-based versus market-based debate. According to these authors, the main issue is not bank-based or market-based system. The importance is ensuring an environment in which intermediaries and markets provide sound and effective services. In an orthodox literature survey, Levine (2004) identifies and summarizes five key functions of financial system through which it can facilitate economic growth: *(i)* Producing information ex ante about possible investments and allocating capital; *(ii)* Monitoring investments and exerting corporate governance; *(iii)* Facilitating the trading, diversification, and management of risks; *(iv)* Facilitating the exchange of goods and services; and *(v)* Mobilizing and pooling savings. Regard to the empirical literature, Levine (2002) argues that distinguishing countries by financial structure (bank-based or market-based) does not allow assessing cross-country differences in long-run economic performance. According to Levine, although overall financial development is robustly links with economic growth, there is no support for either the bank-based or the market-based view. Yet, evidence on transitional economies suggests that the financial systems of the most successful countries among a group of twelve transitional countries are strongly dominated by banking sector (Berglof and Bolton, 2002).

Unlike a rich literature, either theoretical or empirical, on the finance-growth nexus, the structural change in financial systems in the world more and more globalized has been still underdeveloped. Furthermore, the existing literature has seemed to partially explore this issue as investigating the link between the development of each financial system (bank-based versus market-based) and globalization process, which is only captured by financial and trade integration. In terms of supply-side, one influent contribution is the hypothesis initialed by Rajan and Zingales (2003). They argue that interest groups and especially industrial and financial incumbents are frequently worried by the financial development that can create opportunities for the entry of new firms resulting in breeding competition and eroding incumbents' profits. In this context, incumbents have strong incentives to resist the financial development. Rajan and Zingales indicate that the opposition to financial development will be weaker if a country is more open to both trade and foreign capital flows. Using a panel data of 24 countries mostly industrialized during the period 1913-1999, they find that the simultaneous opening of both trade and capital accounts holds the

key to successful financial development. Rajan and Zingales' hypothesis has been considered as an important prediction in the empirical literature, which lends itself to other rigorous empirical analysis in the same field. With respect to Rajan and Zingales' hypothesis and using the measure of "natural openness" favoured by Frankel and Romer (1999), Huang and Temple (2005), first, support that openness and finance are strongly associated for higher-income countries, but not for lower - income. Secondly, applying the Granger causality method for a 40-years and 88-countries dataset, they conclude the strong effects of trade openness on financial development in the whole sample for lower-income countries, but not for higher income countries. In another empirical work, using a dynamic panel technique – the GMM estimator, Baltagi et al. (2009) address the empirical question of whether trade and financial openness can help explain the recent pace in financial development, as well as its variation across countries in recent year. According to the authors, although a country can benefit most by opening both its trade and capital accounts, opening up one without the other could still encourage the banking development. Most recently, based on a sample of 29 Asian developing countries over 1994-2008, Pham (2010) finds evidence of a bidirectional causality between trade openness and financial development. The author also argues that this relationship is still concluded even under the impact of financial crises. Overall, the findings in each above empirical contribution seem to be diverse. The main reason is that in each contribution, the model specifications are not identical, the estimations procedures are not the same and the datasets and data frequencies used for estimation are quite different.

In terms of demand-side, Svaleryd and Vlachos (2002) ask the question of whether institutions allowing for better insurance possibilities and risk diversification within a country are positively related to a liberal trade regime. In particular, they investigate whether the development of domestic financial markets is systematically related to trade policy. They argue that openness may be associated with greater risks, including exposure to extend demand shocks or foreign competition. Openness to trade will create new demands for external finance, which in turn encourage financial markets' development to diversify financial risks and to allow firms overcoming short-term cash flow problems or adverse shocks. In this sense, the effects of trade on finance are likely to work primarily through the demand side. Trade openness and financial development may also be linked in other ways. In a cross country study, Levine and Renelt (1992) identify a robust correlation between openness and the share of investment in GDP. They also show that trading economies with a high investment level may promote their financial development. On the other hand, according to Acemoglu and Zilibotti (1999), if greater openness makes relative performance evaluation easier, this would encourage market-based financial intermediation rather than direct monitoring. Finally, developing a model of sovereign lending,

Spiegel and Rose (2004) suggest that if a credible threat to reductions in trade occurs then one should observe more lending occurring between countries whose trading links are stronger.

In general, all above outlined works focus on the ways in which economic integration, in particular financial and trade integration, and the development of either overall financial system or each component of financial system (bank versus market systems) are connected. However, it should be noteworthy that these works have ignored the dynamic change in financial structure over the last decades. On the other hand, while globalization process is manifold dimensions (economic, social, political, cultural, environmental and so forth), the previous cited studies have only deepened our understanding of financial and trade openness' impacts on domestic financial systems. These knowledge gaps motivate us to investigate the potential impacts of different globalization dimensions on financial structure change.

3. Data issues

This section describes the data on which our empirical study is based. We begin with an outline of the financial structure measures, globalisation indicators and other macroeconomic variables. It is followed by the data setting.[3]

3.1. Measures of financial structure

"How to measure the financial structure?" has been a growing concern in the financial economics. In this paper, following the previous empirical works (e.g. Beck et al., 2001; Huang, 2005), we use a broad set of different indicators of financial structure. Each of these measures is constructed in respect to the principle that higher values imply more market-based financial system.

The first one is *Structure-Activity*, which compares the activity of stock markets with that of banks. This indicator is defined as the log of the ratio of Value Traded and Bank Credit. Value traded refers to the total value of stocks traded as a share of GDP. Bank Credit equals the claims of the banking sector on the private sector as a share of GDP. According to Levine (2000), the structure-activity indicator indicates procedure intuitively appealing classification of national financial systems as well as highlights potential anomalies. Together with the structure-activity indicator, we use two alternative measures of financial structure as follows:

- *Structure-Size* indicator indicates the size of stock markets relative to that of the banking sector. The size of stock markets is measured by the market capitalisation ratio, which equals the value of domestic equities listed on domestic exchange divided by GDP. The size of bank is always captured by the bank credit ratio.

[3] Appendix A provides information on four country sub-samples. Appendix B contains the description and sources of all variables under consideration.

- *Structure-Efficiency* indicator is defined as the efficiency of stock markets relative to that of banking systems. This indicator is measured by the product of Overhead Costs and Stock market turnover.

The previous empirical work (e.g. Beck et al., 2001; Levine, 2000) also uses the fourth financial structure measure - *Structure-Aggregate* indicator that is the principal component of the size, activity and efficiency structure measures. However, this index is not introduced in our present paper. The reason is that the *Structure-Activity* and *Structure-Efficiency* indexes are computed from the WDI database while the *Structure-Efficiency* index is collected from the database developed by Beck et al. (2001). In order to avoid the result bias resulting from the incompatibility in data sources, we do not, therefore, construct the principal component of these three main indicators.

3.2. Globalisation indicators

As mentioned, globalisation is manifold dimensions. In this paper, we pay our attention to two main dimensions of globalisation process, notably economic and non-economic dimensions. In order to capture the non-economic dimensions of globalisation, we use the dataset developed by the Zurich-based Konjunkturforschungsstelle (KOF) (Dreher et al., 2008), which proposes three social globalization indicators and one political globalization indicator. Likewise, we classify the economic dimensions of globalization process into three sub-dimensions:

- *First*, to measure the general degree of economic globalization of a given country we use the "Actual economic flows" indicator provided by Dreher et al. (2008). This indicator presents a weighted average of trade, foreign direct investment, portfolio investment and income payments to foreign nationals.
- *Second*, the financial dimension of globalization is measured through two alternative indicators being considered as "*de facto*" one or "*de jure*" one. According to Baltagi et al. (2009), to provide a useful summary of the financial integration progress of a country, one should use the ratio of foreign assets and liabilities to GDP as a *de-facto* indicator. This indicator is initially constructed by Lane and Milesi-Ferretti (2006). However, due to the data unavailability, we use the share of FDI inflows in GDP instead of Lane and Milesi-Ferretti's index. The "*de jure*" indicator is the Chinn and Ito (2006) index of capital account openness (*KAOPEN*) that is widely used in previous cross-country studies.
- *Third*, we use a broad set of indicators to measure the level of trade globalisation. The first one is the trade openness indicator. Among others, the most well-known trade openness indicator is the Sachs and Warner (1995) index.[4] Although this index serves as a proxy for a

[4] The SW index, which is constructed by Sachs and Warner (1995), is a dummy variable for openness based on five individual dummies for specific trade-related policies. Relying on this index, a country is classified as closed if it

wide range of policy and institutional differences and not only of trade policy (Rodriguez and Rodrik, 1999), it can only suggest that a country is either open or closed. This index is also difficultly constructed due to the unavailability of many data components. Besides, the statistical correlation between the SW index and other variables of interest is not always obvious and difficult to set an econometric model and to interpret the empirical results. For these reasons, we employ two other standard trade openness indicators measured by exports/GDP and imports/GDP. The second one is a set of *de jure* trade openness indicators including: *i)* Most-favoured nation (MFN) rate; *ii)* trade concentration index; and *iii)* trade diversification index.

3.3. Other variables

Remind that this paper aims to investigate the possible impacts of globalisation process on the change in financial structure. However, in order to avoid a potential model uncertainty problem resulting from the bias of variable inclusion/exclusion, we introduce other macroeconomic variables in all regressions. We select the additional variables by following the empirical work developed by Huang (2005). In this work, applying the Bayesian Model Averaging (BMA) and General-to-specific (Gets) approaches, Huang selects, from a wide range of macroeconomic variables, a subset of potential determinants of financial development. Here, we reuse these variables classified into different categories: the country size; institutional quality; macroeconomic policy; and geographic characteristics.

Firstly, we employ three indicators, including GDP growth rate; GDP per capita and population (in log value) to capture the level of economic development. The fact is that the link between finance and economic growth has been widely concluded in the literature, either theoretical or empirical. So that, introducing these indicators should be required in all regressions. On the other hand, the quadratic term for GDP per capita is also included in order to allow for the possible nonlinear effect of economic growth on the change in financial structure. Together with the previous economic development variables, we use two other variables to consider the impacts of macroeconomic stability on financial structure, notably the annual level of inflation (INF) and the difference between official exchange rate and black market's exchange rate (EXR).

Secondly, regarding to the institutional quality, we introduce a set of five alternative variables. *The first one* (LEG dummies) considers the impact of legal origin on financial structure. This dummy (LEG1 through LEG5) takes into consideration five different legal origins: British origin; French

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displays at least one of the following characteristics: Average tariff rates of 40 per cent or more; Non-tariff barriers covering 40 per cent or more of trade; A black market exchange rate that is depreciated by 20 per cent or more relative to the official exchange rate, on average, during the 1970s or 1980s; A state monopoly on major exports; A socialist economic system.

origin; socialist origin; German origin; and Scandinavian origin. *The second one* POLITY2 is the democracy index that reflects government type and institutional quality based on freedom of suffrage, operational constraints and balances on executives, and respect for other basic political rights and civil liberties.[5] POLITY2 ranges from -10 to 10 with higher values representing more democratic regimes. *The third one* DURABLE is the political stability index, using the number of years since the last regime transition or independence. *The fourth one* PCI measures narrowly the constraints on the executive. All of these three indexes POLITY2, DURABLE and PCI are derived by (Marshall et al., 2003). *The last one* is a widely-used indicator of the quality of government in a broader sense (labelled GQ), which is suggested by Kaufmann et al. (2010), derived by averaging six measures of government quality: voice and accountability, political stability and absence of violence, government effectiveness, light regulatory burden, rule of law, and freedom from graft.

Thirdly, our present paper also tends to examine the impacts of initial level of financial development on the subsequent change in financial structure. Due to the data availability, we should exclusively focus on the pooled, cross-section, time-series results, where the data are pooled over the periods of 5 years. Nonetheless, it is enough to simply replace the averaged values of financial indicators over 1990-2010 by the 1989 value. Thus, to capture the impacts of initial level of financial development, we simply use two financial development indicators in 1989 - the Private Credit to GDP and the Capitalization Value to GDP (labeled BANK1989 and MARKET1989, respectively).

Finally, to capture the influence of geographic indicators, we include a set of eight regional dummies, which is also favoured in Huang (2005), including: East Asia and Pacific (EAP); East Europe and Central Asia (EECA); Middle East and North African (MENA); West Europe (WE), North American (NA); South Asian (SA); Sub Saharan African (SSA); and Latin America and Caribbean (LAC). To this end, we also consider another geographic variable - the area variable (AREA in the log value).

3.4. Data setting

On one hand, we exclude the transition economies and small economies with a population of less than 500,000 in 2000 from our analysis. The information on the transition economies and population size are from the World Bank Global Development Network Database (GDN) and the World Development Indicators (2011) respectively. On the other hand, in order to avoid the potential problem of heterogeneity in cross-country economic development level, there are five

[5] This index is so-called the "combined polity score", equal to the democracy score minus the autocracy score. The democracy and autocracy scores are derived from six authority characterises (regulation, competitiveness and openness of executive recruitment; operational independence of chief executive or executive constraints; and regulation and competition of participation). Based on these criteria, each country is assigned a democracy score and autocracy score ranging from 0 to 10.

data samples on which the estimation is based: *(i)* the whole sample; *(ii)* high-income (HI) sample; *(iii)* low-income (LI) sample; *(iv)* lower middle-income (LMI) sample; and *(v)* upper middle-income (UMI) sample. Two remarks may rise from this data setting. Firstly, for the whole sample, in order to consider the different level of cross-country income, we additionally consider in each econometric investigation a set of income binary dummies, which capture four different levels of income: low, lower middle, upper middle and high. Secondly, the high income country sample include both OECD and non – OECD countries.

<*Insert Table 1*>

The data sets are summarised in Table 1 that provides means and standard deviations of all dependent key variables (overall, between and within countries). Additionally, Table 1 provides the correlation coefficients between financial-structure variables and all dependent variables. It can be seen that all financial structure indicators display considerable variation both between and within countries, justifying the use of panel estimation techniques, which should allow the identification of the various parameters of interest. As shown in Table 1, almost correlation coefficients are significant that aids the modelling and help to confirm the choice of dependent variables. However, the values of correlation coefficient are diverse, ranging from negative to positive, from small to important. For instance, we find a positive and significant value of correlation coefficients between financial structure and the ratio exports/GDP, while the correlation coefficients between financial structure and the ratio imports/GDP are statistically insignificant. Looking at financial openness indicators, financial structure is much less correlated to the *de facto* than the *de jure* openness measures. Besides, the financial structure indicators seem to be strongly and positively correlated with social and political globalisation. Regarding other explanatory variables, the correlation coefficients between these variables and financial structure are positive and quite important. Finally, it is also noteworthy that there is such an important and positive correlation, ranging from 0.38 to 0.65, between three financial structure indicators. We also calculate the correlation coefficients between financial structure indicators and all explanatory variables under consideration for each data sample (but are not reported to save space). The empirical results show that the magnitudes, the statistical significance even the sign of correlation coefficient have been more or less altered. Thus, we should not be surprised to see different empirical results for different data samples.

4. Empirical strategy

Our present paper aims to explain the change in financial structure as well as its variation across countries. Given this aim, our empirical strategy tries to make maximum use of both time and

cross-country dimensions of available annual dataset. The empirical model is formulated as follows:

$$\boldsymbol{lnFS_{it} = \beta_0 + \beta_1 lnGLO_{it} + \beta_2 lnMCRO_{it} + \beta_3 FD_i^{1989} + \beta_4 LAW_i + \beta_5 INST_{it} + \beta_6 DUM_t + u_{it}} \quad \textbf{(1)}$$

where *FS* is an indicator of financial structure; *GLO* represents the globalization indicators; *MCRO* represents the macroeconomic variables; FD^{1989} is the initial level of financial development in 1989; *LAW* represents the legal origin of each country; *INST* is the institutional quality; *DUM* is income and regional dummies; and *u* is an error term that contains country and time specific fixed effects.

According to Equation 1, financial structure seems to be determined by the globalization dimensions (trade, financial, social and political) alongside a set of conditioning variables including the past history of financial development, the stage of economic development, captured by per capita income and economic growth, the institutional environment, and all time-invariant country specific factors such as geography characteristics and unchanging legal origin factor. Different hypotheses regarding the interaction term between financial structure and dependent variables imply different predictions on estimated coefficients' values. In detail, different hypotheses tested in this paper are as follows:

- *First*, a small increase in any globalization dimension would result in a change in financial structure. This would certainly be the case if the coefficients (β_1) are significant. If one or more of these coefficients is not significant while the others are significant, it means that the globalization process partially influences the financial structure.
- *Second*, Boyd and Smith (1998) argue that banks are particularly important at low levels of economic development. As income rises, countries benefit from becoming more market-based. This hypothesis would be supported if the coefficients (β_2) associated with per capita income and economic growth are positive.
- *Third*, Rajan and Zingales (1998) suggest that bank-based systems have a comparative advantage in economies with weak legal systems. In these countries, powerful banking system can still force films to reveal information and pay their debts. In this context, economies will benefit from becoming more market-based only as their legal system capabilities strengthen. According to this view, we expect to find a significant and positive value of coefficients (β_5).
- *Finally*, according to King and Levine (1993), the initial level of financial development is positively and significantly correlated with the level of subsequent financial development. In this light, we suppose that the initial level of financial development could also affect the subsequent change in financial structure. This view predicts that the coefficients β_3 should be positive or negative, which depends on the different measures of financial development.

5. Empirical analysis

This section reports the empirical results of both the Ordinary Least Squares (OLS) estimation and the Instrumental Variables (IV) estimation. It also outlines the results' implications for the considered theoretical hypotheses and discuses policy recommendations.

5.1. Estimations results

Table 2 represents the empirical results using the OLS estimation with heteroskedasticity-consistent standard errors for the full data sample. As reported in Table 4, the impacts of globalisation aspects as well as other macroeconomic variables on financial structure are much diverse and strongly depend on the way to measure financial structure.

<*Insert Table 2*>

Impacts of globalisation aspects

Going straight to the hypothesis of interest, we note that in the financial structure-activity regression, all "de facto" measures of trade openness are not statistically significant. This means that the change in structure-activity of domestic financial system does not depend on the level of trade openness. By contrast, the trade integration seems to be significantly related to financial Structure-size at least the 5% significance level. Accordingly, more the country opens to trade, more the structure-size of domestic financial system changes. The export/GDP and import/GDP ratios are negatively correlated with financial structure-size at least the 5% significance level, suggesting that the development of exports and imports activities increases the size of bank-based financial system in comparison with that of market-based financial system. This result may be explained in two ways. On one hand, the trade policy based on exports promotion is designed to attract more private firms into exporting by offering help in product and market identification as well as providing financial and credit services. The growth of private sectors' credit demand, in turn, becomes a factor of deepening the banking-system. On the other hand, the negative relationship between imports and financial structure-size can be justified by the fact that an increase in credit demand, which results from a rising demand for financing imports flow, once again, promotes the development of domestic banking system. These both reasons support that the growth of exports and imports is one of the main channels strengthening the size of banking system compared to that of financial market system.

Following Table 2, we also find that trade integration differently influences financial structure-efficiency. While exports variable enters with positive but non-significant coefficient, the impact of imports and total trade flows is economically meaningful and significant at the 10% level. For instance, an increase of 1% in imports and in total trade flow leads to an increase of 0.924% and a decrease of 1.438% in financial structure-efficiency, respectively. In other words, the imports growth results in a greater efficiency of market-based system, while general trade growth seems to

improve the efficiency of bank-based system. Unlike such a diverse impact of "de facto" trade openness on financial structure, we observe that FDI inflow - which is used as a "de facto" financial openness - significantly and positively influences all financial structures measures at the 1% level. The values of inward FDI coefficients are, however, pretty small. According to this result, inward FDI should be considered as a potential factor mattering for structural change in domestic financial sector, particularly from a bank-based to a market-based system.

Examining now the *de jure* openness indicators, we first note that the *de jure* trade openness indicators partially enter in the estimation regressions with statistically significant coefficient. For instance, an increase in the MFN index can lightly decrease the value of all three financial structure indicators. Thus, the MFN index should be considered as a political tool to control the change in domestic financial structural. Otherwise, the empirical results only support the significantly negative impact of the exports concentration index on financial structure-size indicator. The structure-size indicator is also positively influenced by the KAOPEN index – a "de jure" financial openness measure, implying that capital account liberalisation spurs market-based system development once a threshold level of legal development has been attained. We now turn our attention to the link between other globalisation indicators and financial structure. It is worth noting that none of the estimated coefficients associated with the actual economic flow index and political globalisation index enters with a significantly statistical value. By contrast, we observe that the social globalization index positively but weakly affects the financial structure-activity. It means that the development of social globalisation process, which is measured by a combination of personal contacts, information flows and cultural proximity, promotes the stock value traded in particular and favours the financial market's activity in general.

Impacts of macroeconomic environment

As mentioned in the previous section, this paper also tends revisit the hypothesis, suggested by Boyd and Smith (1998), about the connection between the level of economic development and financial structure. First, we note that income per capita and economic growth rate are statistically significant determinants of financial structure at least the 5% level. The positive estimated coefficients of these variables strongly support the theoretical consideration of Boyd and Smith that as income rises, countries can benefit from becoming more market-based. For this reason, economic development leads to a gradual change in financial structure from a bank-based to a market-based system. Moreover, the significant and negative values of the quadratic GDP per capita variable imply a nonlinear relationship between economic development and financial structure. It indicates that economic development has positive effect on financial structure below threshold level, but beyond the estimated threshold, economic development has negative effect on financial structure. In the other words, as the level of economic development arises, domestic

financial system becomes more market-based but at a decreasing rate over time. While economic development plays an important role in determining the financial structure, other macroeconomic variables, notably inflation and exchange rates difference, do not significantly enter in the financial structure regressions.

Another hypothesis tested in this paper is the possible interaction between the initial level of financial development and financial structure. As shown in Table 2, the initial level of both banking and financial market development has no impact on determining the financial structure-activity. Regarding to other financial structure regressions, we note that the initial level of banking development enters in both structure-size and structure-efficiency regressions with a positive and significant coefficient of around 0.486 and 1.27, respectively. This result indicates that a higher initial level of banking development allows the market-based system functioning more efficiently. Similarly, a greater initial level of market development also helps a country to improve the subsequent size of market-based system. In general, the initial level of financial development is partially linked with the subsequent change in financial structure from a classical bank-based to a modern market-based system.

Impacts of institutional and legal environment

As mentioned above, in this paper we also re-examine the possible relationship between financial structure and legal and institutional system outlined by Rajan and Zingales (1998) and La Porta et al. (1998). *First*, we note that among others, only the government quality index significantly influences financial structure, but its impact is diverse and weak. This indicator significantly enters with a positive estimated coefficient in the structure-size regression, but with a negative estimated coefficient in the structure-efficiency regression. The other institutional quality measures (including the democracy index, the political stability index, and the constraints on the executive index) are not significantly related to financial structure. None of these institutional quality indicators significantly enters in any financial structure regression at least the 10% level. The statistical estimated values of these indicators are, moreover, pretty small in all regressions. *Second*, contradictory to the result on institutional quality's impact, we find that financial structure significantly depends on the legal origin. Specifically, almost different legal origins tend to support a more bank-based financial system rather than a more market-based financial system. Overall, the impacts of legal and institutional system on financial structure seem to be diverse. This may be due to the heterogeneous level of economic development in our full data sample, even though we have introduced in all regressions a set of dummies considering the different level of economic development.

We now look at the dummies reflecting the differences in economic development level and geographical zone. It is generally worth noting that most of these dummies have not any impact in

changing the financial structure, except the two following cases. *First*, the coefficient of North America region dummy is significantly negative of around -0.294 and -0.365 the structure-activity and structure-size regressions, respectively. *Second*, the OECD dummy also enters with a negative and significant coefficient of around -0.25 in the same regression. This implies that there is a changing financial structure phenomenon in the high income countries, in particularly in North America region. Interestingly, in these countries that are well-known for their developed market-based system, the domestic financial sector's structure has been altering in favour of bank-based system. This issue is also graphically supported in Figure 1, which displays the change in financial structure-size following the change in trade openness indicator in all countries at any income level.

<*Insert Figure 1*>

From Figure 1, we first observe that in the low-income countries, the relationship between trade openness and financial structure-size is not clear-cut. Between 2000 and 2010, the trade openness indicator has tended to increase, while the value of financial structure-size indicators has not changed. In particular, a market-based financial system has not been developed in almost of these countries. Second, the lower middle-income countries have experienced a stable value of trade openness but a lightly increasing trend in financial structure-size indicator, meaning that their domestic financial system has become more and more market-based, in particular in the case of emerging markets such as Indonesia and India. Regarding the upper middle-income countries, the co-movement between trade openness and financial structure is not also clear. In some countries (e.g. Mexico, Russia…) a stable value of trade openness is followed by an increase in financial structure-size value. In other countries (e.g. Argentina, Turkey…), the financial system has a tendency of becoming more bank-based. Specifically, the second global largest economy, China, has experienced a sharp increase in trade openness, however no significant change in financial structure-size from 2000 to 2010. Looking at the case of high-income countries, Figure 1 displays a sharply changing trend in financial structure-size. In detail, the development of banking system seems to be faster than that of market system, while the trade openness indicator seems to be stable in the "old" industrial countries. Regarding now three new industrial countries, while Korea and Singapore do not evidence any clear-cut dynamics of financial structure and trade openness, Hong Kong has experienced not only a remarkable growth of international trade but also an important change in its financial structure. Hong Kong's trade openness index has increased from 282% to 440.3%, and its financial structure-size indicator has been nearly tripled (2.4 to 6.4) over the period 2000-2010.

On the whole, the impacts of either globalisation variables or other explanatory variables on financial structure are diverse. These impacts vary across countries at different level of economic development, and also depend on the way to measure globalisation aspects and financial

structure. For this reason, in the next step, we re-examine all hypotheses of interest for different country groups in order to avoid the possible biased results due to the heterogeneity of economic development levels.

Empirical results for different data sub-samples

As stated above, basing on four different levels of economic development, we simply split the full data sample four sub-samples: low income, lower-middle income, upper middle-income, and high-income. For each country sample, we also reuse the OLS technique with *heteroskedasticity-consistent standard errors* to re-estimate Equation 1, in which all income level dummies are excluded. We report all empirical results in Tables 3.1-4. Here, we only discuss only the results complementing to and differencing from those of the full data sample.

<*Insert Table 3*>

First, it is worth emphasising that almost explanatory variables enter in all estimation regressions with insignificant coefficients for the LI countries sample. The fact is that among thirty-two countries in the low-income sample there are only seven countries in which the domestic financial sector contains both bank-based and market-based systems.[6] Moreover, in these countries, the value of all financial structure indicators is pretty small over the period 1990-2010 due to the less-development of their financial markets. Thus, no dynamic change in financial structure of low-income countries explains why the value of almost estimated coefficients is not statistically significant.

Second, the empirical results of the LMI sample provide only partial support to those of the full sample. We find that the *de facto* openness indicators, either trade or financial, have no impact on financial structure. Looking at the *de jure* openness indicators, trade diversification index influences significantly and negatively the financial structure-activity indicator, meaning that trade diversification can stimulate activities of banking system in the LMI countries. On the other hand, the estimated coefficient of both political globalization and political durability indexes becomes significantly positive but fairly small in financial structure-activity and structure-efficiency regressions. This suggests that the political evolution in this country group tends to encourage the development of banking system. Besides, the empirical results also support that the change in LIM countries' financial structure, from bank-based to more market-based system, is particularly taking place in South-Asia region. Another different and interesting result is that financial structure is positively associated with the initial level of financial development. So that, the initial level of financial development can be considered as one of the main factors making the subsequent financial structure of LMI countries become more market-based.

[6] Including Bangladesh, Kenya, Malawi, Nepal, Tanzania, Uganda, and Zimbabwe

Third, compared to the low and lower middle-income sample, the results of upper middle-income sample seems to be more consistent with those of the full sample. Meanwhile, there are still a few different results. For instance, the trade diversification index enters in all financial structure regressions with a significant and negative coefficient. This means that a trade concentration policy can alter financial structure of UMI countries in favour of bank-based system. The UIM countries have also experienced the diverse relationships between financial structure and initial level of financial development. As reported in Table 3.3, financial structure negatively depends on the initial level of banking development, but positively links to the initial level of financial market development. In other word, if the initial banking system was well developed, the UIM countries are willing to maintain a subsequent financial system more bank-based, and vice versa.

Turning now to the high-income sample, we first note that the empirical results support, by and large, those of the full sample. On one hand, we find the diverse impacts of globalisation process on financial structure of high-income countries. On the other hand, macroeconomic situation (e.g., the economic development level and the initial level of financial development) and institutional environment also play a determinant role in explaining the change in the high-income's financial structure. Moreover, most of regional dummies enter in the financial structure-size regression with negative and significant coefficient at the 1% level, confirming the fact that domestic financial system becomes more and more bank-based not only in North America but also in other high-income countries.

<*Insert Table 4*>

To this end, stressing the possible impacts of globalisation on financial structure in different data sub-samples allows us to avoid the potential heterogeneous problem. The main empirical results are synthesized in Table 4. They are, by and large, consistent with and complementary to those of the full sample, except the case of low-income sample in which we fail to determine financial structure in function of different regressors under consideration. This exceptional finding can be explained by the fact that financial structure in low-income countries has not altered over the time. Most of these countries have experienced a less-developed domestic financial sector, in which market-based system's activities are not much considered and even absent.

5.2. Sensitivity of empirical results

This sub-section carries out a set of robustness checks to examine the results' sensitivity to alternative estimation strategies and data sub-samples. As mentioned above, in the low-income sub-sample, financial structure seems to not depend on either globalisation indicators or other explanatory variables. It means that including or excluding low-income countries in the full sample might not change the main findings. Thus, the first robustness check involves re-estimating

the full sample without low-income countries' data. The results of OLS estimator with heteroskedasticity-consistent standard errors reported in Table 5 show that omitting low-income countries does not alter the conclusions, only the magnitudes of estimated coefficients are little affected.

<*Insert Table 5*>

The second referred robustness check is the Instrumental Variable (IV) estimator that can correct the country-specific and time-specific effects and allows getting rid of any endogeneity in explanatory variables. However, determining the IV in each estimated gravity equation is not an easy task. On one hand, we treat all *de facto* openness terms (including trade and FDI) as endogenous using a set of instruments: the trade concentration and diversification indexes; the most-favoured nation rate, and the KAOPEN index. These instruments are plausible exogenous drivers of a country's trade and financial openness, respectively, and are unlikely or much less correlated with its financial structure. On the other hand, we treat the initial level of financial development as endogenous using some additional instruments suggested by related literature. The first one is initial income measured by 1989 GDP per capita. Including this variable as an instrument is stimulated by work such as Greenwood and Smith (1997) on the feedback from economic growth to financial development. Second, according to a large number of rigorous empirical works (e.g. Baltagi et al., 2009), both type of openness, either trade or financial are statistically significant determinants of financial development. In this vein, we consider the initial levels of openness (notably the KAOPEN index in 1989, the FDI/GDP1989 and Trade/GDP1989 indicators) as the second instrumental variable.

<*Insert Table 6*>

Above all, we test for the validity of each instrumental variable. In the lower part of Table 6, we report the weak instrument test suggested by Stock and Yogo (2002) and the Hansen/Sargan test of over-identifying restrictions. On one hand, in the weak instrument test the Cragg-Donald F-statistics are superior to the critical value of 10% maximal IV size proposed by Stock and Yogo (2002), meaning that the null hypothesis of weak instruments is rejected. On the other hand, the Sargan/Hansen test of over-identifying restrictions, which is reported in the last line, checks the validity of the instruments. According to the empirical results, we cannot reject the null hypothesis of Sargan/Hansen test meaning that the instruments are valid instruments, notably uncorrelated with the error term, and that the excluded instruments are correctly excluded from the estimated equation.

We now look at the IV estimator's main results reported Table 6.[7] The IV results are, by and large, similar to those of the OLS estimator in terms of sign and significance, but the magnitudes are

[7] We only report the results of IV estimator for the full data sample to save space. Other results are available if required

different as would be expected. The explanatory variables enter with much smaller coefficient than using the OLS technique. It remains, however, highly significant. Otherwise, the IV estimator provides two complementary results to those of OLS estimator. *First*, when we treat the openness variables as endogenous, the export variables (EX) become negative and significant at least the 10% level in all regressions, while the import variables (IM) retain their estimated coefficients and signs. Besides, when the financial openness is treated as endogenous, its level of significance drops from 5% to 10%. In general, imports are less sensitive to endogeneity bias than either exports or inward FDI. *Second*, when we treat the initial level of financial development as endogenous, the initial development of financial market loses significance and so does the interaction term, while the initial development of banking system retains positive and significant at the 1% level. Thus, the market-based system seems more susceptible to endogeneity bias than the banking-based system. This is perhaps not too surprising given that the bank-based system is a fundamental form of financial sector, while creating the market-based system, which reflects a modern form of financial sector, strongly depends on other macroeconomic variables.

6. Conclusion

Our empirical findings on the link between the components of financial structure and globalization aspects and other covariates are, by and large, insensitive to a range of datasets and estimation methods. For instance, omitting the low-income countries in the dataset does not alter the conclusions. Furthermore, when we restrict the sample to just LMI countries, UMI countries and HI countries, the basic results of the impacts of globalization on financial structure hold, while others results are affected but qualitatively not too dissimilar. On the other hand, using the IV estimator to treat the openness and initial level of financial development as endogenous gives similar results to those of OLS estimator.

Our empirical results, by and large, support the impacts of globalisation's multidimensional aspects on financial structure. However, these impacts are diverse and relatively depend on the way to measure globalisation and financial structure. The impacts of globalisation process are also heterogeneous across country. Precisely, our finding reveals a dynamic change in developing countries' financial structure after the globalisation process. However, the financial structure in developed countries has seemed to be less influenced by the extent of their participation in the global economy. By contrast, the emerging countries (e.g. Hong Kong, India and so forth) have experienced the determinant role of globalisation in making their domestic financial system become more market-based.

To this end, the present paper is complementary to the existing literature that has only focused on the one-way linkage running from financial structure to economic growth. Moreover, our results offer an important blessing for policy makers in the country aspiring to change their financial

structure by stimulating their socio-economic integration, since opening up both trade and capital accounts may provide an effective stimulus to financial structure change. However, the opportunities to change financial structure through the globalization process may be limited in low-income countries.

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Appendix A: Country sample

Country sample	Countries
High income (42)	OECD countries (29): Australia; Austria; Belgium; Canada; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Israel; Italy; Japan; Korea, Rep.; Netherlands ; New Zealand; Norway; Poland; Portugal; Slovak Republic; Slovenia; Spain; Sweden; Switzerland; United Kingdom; United States Non-OECD countries (13) : Bahrain; Croatia; Cyprus; Equatorial Guinea; Hong Kong SAR, China; Kuwait; Oman; Puerto Rico; Qatar; Saudi Arabia; Singapore; Trinidad and Tobago; United Arab Emirates
Upper Middle income (42)	Albania; Algeria; Argentina; Azerbaijan; Belarus; Bosnia and Herzegovina; Botswana; Brazil; Bulgaria; Chile; China; Colombia; Costa Rica; Cuba; Dominican Republic; Ecuador; Gabon; Iran, Islamic Rep; Jamaica; Jordan; Kazakhstan; Latvia; Lebanon; Libya; Lithuania; Macedonia, FYR; Malaysia; Mauritius; Mexico; Montenegro; Namibia; Panama; Peru; Romania; Russian Federation; Serbia; South Africa; Thailand; Tunisia; Turkey; Uruguay
Lower Middle income (47)	Angola; Armenia; Bhutan; Bolivia; Cameroon; Congo, Rep.; Cote d'Ivoire; Djibouti; Egypt, Arab Rep.; El Salvador; Fiji; Georgia; Ghana; Guatemala; Guyana; Honduras; India; Indonesia; Iraq; Kiribati; Kosovo; Lao PDR; Lesotho; Mauritania; Moldova; Mongolia; Morocco; Nicaragua; Nigeria; Pakistan; Papua New Guinea; Paraguay; Philippines; Senegal; Sri Lanka; Sudan; Swaziland; Syrian Arab Republic; Timor-Leste; Turkmenistan; Ukraine; Uzbekistan; Vietnam; West Bank and Gaza; Yemen, Rep.; Zambia
Low income (35)	Afghanistan; Bangladesh; Benin; Burkina Faso; Burundi; Cambodia; Central African Republic; Chad; Comoros; Congo, Dem. Rep.; Eritrea; Ethiopia; Gambia, The; Guinea; Guinea-Bissau; Haiti; Kenya; Korea, Dem. Rep.; Kyrgyz Republic; Liberia; Madagascar; Malawi; Mali ; Mozambique ; Myanmar ; Nepal ; Niger ; Rwanda ; Sierra Leone; Somalia; Tajikistan; Tanzania; Togo; Uganda; Zimbabwe

Appendix B: Data Description

	Variables	Definition	Source
Financial structure	Structure-Activity	Log of the ratio of Value Traded and Bank Credit to private sectors	Author's calculations from World Development Indicators (WDI)
	Structure-Size	Log of the ratio of Capitalization market and Bank Credit to private sectors	Author's calculations from World Development Indicators (WDI)
	Structure-Efficiency	The ratio of Overhead Costs and Stock Turnover: - Overhead Costs: Accounting value of a bank's overhead costs as a share of its total assets. - Ratio of the value of total shares traded to average real market capitalization, the denominator is deflated using the following method: Tt/P_at/{(0.5)*[Mt/P_et + Mt-1/P_et-1] where T is total value traded, M is stock market capitalization, P_e is end-of period CPI P_a is average annual CPI	World Bank's Financial Structure and Economic Development Database (FSED), 2010
Trade globalization indicators	Trade diversification	Diversification index of exports and imports of countries and country groups	UNCTAD, 2011
	Trade concentration	Concentration index of exports and imports of countries and country groups	UNCTAD, 2011
	Exports	Share of exports in GDP	WDI, 2011
	Imports	Share of imports in GDP	WDI, 2011
	Trade openness	Sum of exports and imports as a share of GDP	WDI, 2011
	MFN rate	Applied MFN average duty	UNTAD, 2011
Financial globalization indicators	FDI	Inflows of FDI as a share of GDP	WDI, 2011
	De jure financial openness (KAOPEN index)	The Chinn and Ito (2006) index of capital account openness is constructed from four binary dummy variables codifying restriction on cross-border financial transactions that are reported in the IMF's Annual Report on Exchange Arrangements and Exchange Restrictions	http://www.ssc.wisc.edu/~mchinn/research.html
	Actual economic flows	Index (0-100) representing a weighted average of trade, foreign direct investment, portfolio investment and income payments to foreign nationals	Dreher et al. (2008)
Social Globalization		Index (0-100) of a weighted average of the indicators on « Personal contacts » (33%), «Information flows » (36%), and « Cultural proximity » (31%)	Dreher et al. (2008)
	Political Globalization	Index (0-100) of a weighted average of the indicators on « Embassies in Country », «Membership in International Organizations », « Participation in U.N. Security Council Missions », and « International Treaties »	Dreher et al. (2008)

Other explanatory variables			
Country size	GDP per capita (level)	Gross Domestic Product per capita in constant US$ 2000 prices	WDI, 2011
	GDP growth	Annual real GDP growth rate	WDI, 2011
	Population growth	Annual rate of change in population size	WDI, 2011
Institutional quality	LEG (1-5)	Legal origin dummies	Global Development Network Database in World Bank (GDN), 2010
	POLITY2	Index of democracy	PolityIV Database (Marshall et al., 2003) (Updated by 2010)
	DURABLE	Index of political stability	PolityIV Database
	GQ	The quality of government	Kaufmann et al. (2009)
	PCI,	The constraints on the executive	Henisz (2000) (updated by 2010)
Macro Stability	INF	Annual inflation level	WDI, 2011
	EXR	The difference between official exchange rate and black market's exchange rate	GDN, 2010
Geographic variables	Regional dummies	Six dummies determine the region for each country in our sample	GDN, 2010
	AREA	Area (in log) in square kilometers	WDI
Initial financial development	Initial banking system development	Banking credit to private sectors 1989/GDP 1989	WDI and IFS
	Initial market system development	Capitalization value 1989 / GDP 1989	WDI and IFS

Table 1: Summary statistics and correlation: Full simple

		Structure activity	Structure size	Structure efficiency
Observation		3091	3091	2369
Mean		0.218	0.577	12.375
Min		0	0	0
Max		17.443	186.201	1168.224
Standard Deviation	overall	0.615	30.434	370.889
	between	0.116	0.366	50.977
	Within	0.604	30.415	370.434

	Correlation coefficients		
	Structure activity	Structure size	Structure efficiency
Structure-activity	1.0000	-	-
Structure-size	0.6308*	1.0000	-
Structure-efficiency	0.6496*	0.3761*	1.0000
Exports/GDP	0.1149*	0.2270*	0.1210*
Imports/GDP	-0.0430	0.0247	-0.0622
FDI/GDP	0.0511	0.1282*	-0.0070
Trade concentration index	-0.2800*	-0.2148*	-0.4055*
Trade diversification index	-0.4399*	-0.2523*	-0.6429*
MFN rate	-0.1583*	-0.1120*	-0.2151*
Actual economic flows index	0.1891*	0.3182*	0.2617*
Social globalization index	0.4497*	0.4060*	0.6456*
Political globalization index	0.4456*	0.4029*	0.5179*
KAOPEN index	0.2834*	0.3095*	0.4160*
GDP per capita	0.4500*	0.4118*	0.6459*
Growth rate	0.0073	0.0127	-0.1179*
GDPper^2	0.4499*	0.4118*	0.6459*
Exchange rate difference	0.1516*	0.1488*	0.1772*
Population	0.3318*	0.2252*	0.2804*
Inflation	0.2825*	0.2660*	0.4986*
Area	0.1202*	0.0572	0.0606
Initial level of banking development	0.4020*	0.2938*	0.6147*
Initial level of market development	0.4303*	0.4099*	0.4859*
Government quality	0.0072	0.0034	0.0184
Political stability index	0.3880*	0.2590*	0.4240*
Constraints on the executive	0.1231*	0.1173*	0.1648*
Democracy index	0.1374*	0.1698*	0.2319*

*Note: * indicates statistical significance at least the 10% level.*

Table 2: OLS estimator's results – Full sample

Independent variables	Structure-activity		Structure - size		Structure-efficiency	
	Coef.	Standard error	Coef.	Standard error	Coef.	Standard error
Exports/GDP	-0.124	0.139	-0.194**	0.094	0.454	0.347
Imports/GDP	-0.248	0.318	-0.604***	0.167	0.924*	0.560
FDI/GDP	0.045***	0.018	0.038***	0.012	0.027**	0.015
Trade concentration index	-0.061	0.080	-0.266**	0.114	-0.401	0.321
Trade diversification index	0.027	0.204	0.341	0.227	0.670	0.657
MFN	-0.005**	0.002	-0.003***	0.001	-0.009*	0.005
Actual economic flow index	0.000	0.001	0.001	0.001	0.006	0.005
Social global index	0.006***	0.002	0.003	0.002	0.011	0.007
Political globalization index	-0.001	0.001	0.001	0.001	-0.002	0.003
KAOPEN	-0.008	0.010	0.027**	0.013	0.006	0.027
GDP per capita	59.128***	21.548	59.358**	28.944	262.791***	112.722
GDPper²	-29.519***	10.752	-29.675**	14.453	-131.197**	56.244
Growth rate	0.034***	0.007	0.039**	0.014	0.064**	0.027
Population	0.096***	0.022	0.132***	0.025	0.341***	0.088
Inflation	0.011	0.032	0.018	0.051	0.032	0.114
Area	0.014	0.012	-0.008	0.017	0.018	0.056
Exchange rate difference	-0.013***	0.004	0.001	0.007	-0.009	0.014
Government quality	0.000	0.000	0.000**	0.000	-0.001**	0.000
Political Durability	0.001	0.001	0.000	0.001	0.000	0.002
Constraints on the executive	0.000	0.000	-0.001	0.001	0.001	0.001
Democracy index	-0.003	0.004	0.004	0.003	-0.007	0.011
Banking development	-0.097	0.134	-0.243	0.169	1.127***	0.531
Market development	0.120	0.144	0.486**	0.152	0.704	0.502
EAP region	-0.087	0.129	-0.079	0.101	0.489	0.463
EECA region	0.132	0.184	0.002	0.109	0.391	0.569
MENA region	-0.123	0.124	0.090	0.096	0.352	0.398
SA region	0.187	0.147	-0.002	0.059	0.430	0.288
WE region	-0.196	0.156	-0.131	0.138	0.193	0.558
NA region	-0.294**	0.158	-0.365**	0.139	-0.306	0.538
SSA region	-0.131	0.121	0.035	0.061	-0.174	0.281
LAC region	-0.214	0.131	-0.009	0.083	-0.320	0.334
Low-income country	0.010	0.181	-0.377	0.251	-0.911	0.810
LMI country	-0.041	0.144	-0.128	0.205	-1.033	0.675
UMI country	-0.056	0.121	-0.037	0.174	-0.364	0.534
OECD	-0.251**	0.123	-0.215*	0.118	-0.624	0.499
Non-OECD	-	-	-	-	-	-
Leg_british	-0.279***	0.129	-0.129	0.115	-0.703***	0.399
Leg_french	-0.220**	0.129	-0.298**	0.108	-0.846	0.360
Leg_socialist	-0.641***	0.215	-0.352**	0.168	-0.682**	0.625
Leg_german	-0.176	0.159	-0.384**	0.146	-0.884**	0.442
Leg_scandivanian	-	-	-	-	-	-
Constant	-2.310***	0.741	-2.155***	0.791	-7.658**	3.369

*Note: * (**; ***) indicate statistical significance at the 10% (5%; 1%) level, respectively.*

Table 3.1: OLS estimator's results – Low-income countries sample

Independent variables	Structure-activity		Structure - size		Structure-efficiency	
	Coef.	Standard error	Coef.	Standard error	Coef.	Standard error
Exports/GDP	-0.037	0.060	-0.166	0.310	-0.964	1.174
Imports/GDP	-0.100	0.148	-0.472	0.836	-2.142	2.511
FDI/GDP	-0.001	0.005	0.028	0.021	0.034	0.046
Trade concentration index	0.033	0.027	0.022	0.115	0.024	0.130
Trade diversification index	-0.065	0.074	-0.506	0.369	-0.432	0.361
MFN	-0.002**	0.001	-0.003	0.002	-0.020***	0.003
Actual economic flow index	0.000	0.001	-0.005	0.002	0.000	0.004
Social global index	0.001	0.001	0.007	0.005	0.011	0.009
Political globalization index	0.001	0.000	0.002	0.001	0.001	0.003
KAOPEN	-0.002	0.003	-0.044*	0.025	0.013	0.041
GDP per capita	21.250	16.974	-37.730	55.834	-9.681	194.635
GDPper²	-10.577	8.446	18.720	27.777	4.681	96.815
Growth rate	0.002	0.003	0.014	0.011	0.025	0.030
Population	0.011	0.016	0.016	0.057	-0.121	0.097
Inflation	0.028	0.022	0.037	0.054	-0.025	0.070
Area	0.001	0.006	0.011	0.023	0.018	0.049
Exchange rate difference	-0.004	0.004	0.003	0.010	-0.001	0.010
Government quality	-0.019**	0.009	-0.057*	0.036	0.125	0.119
Political Durability	-0.001	0.001	0.001	0.002	0.011	0.008
Constraints on the executive	0.000	0.000	-0.001	0.000	-0.001	0.001
Democracy index	0.000	0.001	0.007**	0.003	0.011	0.011
Banking development	0.028	0.102	0.233	0.506	-0.594	0.537
Market development	0.394	0.436	5.288**	2.365	15.109	3.850
EAP region	-	-	-	-	-	-
EECA region	0.211***	0.048	0.054	0.203	2.736	0.400
MENA region	-	-	-	-	-	-
SA region	0.074***	0.025	-0.218**	0.113	2.787***	0.291
WE region	-	-	-	-	-	-
NA region	-	-	-	-	-	-
SSA region	0.034	0.025	-0.076	0.099	-0.059	0.157
LAC region	-	-	-	-	-	-
Leg_british	0.012	0.007	0.244***	0.030	0.154	0.110
Leg_french	-	-	-	-	-	-
Leg_socialist	-	-	-	-	-	-
Leg_german	-	-	-	-	-	-
Leg_scandivanian	-	-	-	-	-	-
Constant	-0.885*	0.535	1.213	1.744	4.772	7.788

*Note: * (**; ***) indicate statistical significance at the 10% (5%; 1%) level, respectively.*

Table 3.2: OLS estimator's results – LMI countries sample

Independent variables	Structure-activity		Structure - size		Structure-efficiency	
	Coef.	Standard error	Coef.	Standard error	Coef.	Standard error
Exports/GDP	0.127	0.138	0.022	0.297	0.149	0.212
Imports/GDP	0.351	0.238	-0.631	0.490	0.146	0.302
FDI/GDP	0.017	0.013	-0.031	0.040	-0.001	0.031
Trade concentration index	0.130	0.158	-0.319	0.261	0.278	0.233
Trade diversification index	-0.621***	0.294	-0.717	0.416	-0.750	0.559
MFN	-0.008***	0.003	-0.006***	0.002	-0.011***	0.004
Actual economic flow index	-0.001	0.002	0.006**	0.003	-0.005*	0.003
Social global index	0.008***	0.003	-0.001	0.004	0.018**	0.008
Political globalization index	0.003***	0.001	0.001	0.002	0.003	0.002
KAOPEN	-0.021*	0.013	0.061***	0.018	0.011	0.020
GDP per capita	1.021***	0.076	1.010***	0.083	0.293**	0.124
GDPper²	-2.302**	1.116	-2.742**	1.386	-3.943**	1.755
Growth rate	0.023*	0.015	0.140**	0.053	0.110***	0.026
Population	0.059***	0.022	0.035	0.042	0.103***	0.029
Inflation	0.032	0.034	0.103	0.091	-0.004	0.060
Area	0.060***	0.023	0.046**	0.023	0.082***	0.022
Exchange rate difference	0.004	0.005	0.004	0.016	-0.007	0.009
Government quality	0.000	0.000	0.000	0.000	0.000	0.000
Political Durability	-0.005***	0.002	-0.001	0.002	-0.013***	0.003
Constraints on the executive	0.001	0.001	-0.001	0.001	0.002	0.001
Democracy index	-0.010	0.008	0.005	0.004	-0.026*	0.015
Banking development	0.554**	0.228	0.635*	0.382	0.835**	0.437
Market development	1.251***	0.404	4.369***	0.664	1.465*	0.921
EAP region	-0.075	0.071	-0.194	0.102	-0.053	0.209
EECA region	-0.057	0.116	0.286**	0.137	0.078	0.261
MENA region	0.084	0.067	0.331**	0.127	-0.010	0.206
SA region	0.272**	0.127	-0.088	0.069	0.641***	0.203
WE region	-	-	-	-	-	-
NA region	-	-	-	-	-	-
SSA region	-0.088	0.082	-0.001	0.077	-0.405*	0.216
LAC region	-0.019	0.071	-0.025	0.094	-0.083	0.215
Leg_british	0.206**	0.081	0.443***	0.069	0.251**	0.111
Leg_french	-	-	-	-	-	-
Leg_socialist	-	-	-	-	-	-
Leg_german	-	-	-	-	-	-
Leg_scandivanian	-	-	-	-	-	-
Constant	-0.936	1.004	-1.174	1.108	0.407	1.554

*Note: * (**; ***) indicate statistical significance at the 10% (5%; 1%) level, respectively.*

Table 3.3: OLS estimator's results – UMI countries sample

Independent variables	Structure-activity		Structure - size		Structure-efficiency	
	Coef.	Standard error	Coef.	Standard error	Coef.	Standard error
Exports/GDP	-0.396	0.306	-0.820*	0.437	2.870**	1.361
Imports/GDP	-0.236	0.250	-0.807**	0.391	-1.174	0.990
FDI/GDP	0.031**	0.018	0.051***	0.021	0.160***	0.060
Trade concentration index	-0.292**	0.103	-0.479***	0.220	0.582	0.567
Trade diversification index	0.220	0.244	0.573*	0.358	-1.869**	0.871
MFN	-0.001	0.002	0.001	0.002	0.003	0.006
Actual economic flow index	0.000	0.001	0.001	0.002	0.018***	0.006
Social global index	0.000	0.002	0.002	0.003	0.014*	0.008
Political globalization index	0.001	0.001	0.000	0.001	0.010**	0.005
KAOPEN	-0.001	0.009	0.033**	0.019	0.021	0.033
GDP per capita	1.057***	0.044	1.004***	0.098	1.089***	0.266
GDPper²	-3.302**	1.094	-2.502**	1.004	-2.854**	1.004
Growth rate	0.040***	0.012	0.042**	0.021	0.133**	0.053
Population	0.100***	0.024	0.139**	0.056	0.270**	0.141
Inflation	0.031	0.046	-0.041	0.079	-0.077	0.211
Area	0.023	0.017	0.039	0.041	0.028	0.100
Exchange rate difference	-0.002	0.005	-0.001	0.006	0.019	0.012
Government quality	0.039	0.029	0.092**	0.049	0.410**	0.148
Political Durability	0.000	0.001	0.001	0.002	-0.003	0.005
Constraints on the executive	0.001	0.000	0.001	0.001	0.003	0.002
Democracy index	-0.003	0.004	0.008	0.005	-0.003	0.018
Banking development	-0.373**	0.136	-0.628***	0.284	0.543	0.679
Market development	0.224**	0.161	0.811**	0.399	0.247	0.718
EAP region	0.333***	0.099	-0.233	0.228	2.818***	0.617
EECA region	0.448***	0.054	0.141	0.119	1.830***	0.275
MENA region	0.078	0.070	0.138	0.124	0.617*	0.354
SA region	-	-	-	-	-	-
WE region	-	-	-	-	-	-
NA region	-	-	-	-	-	-
SSA region	0.303***	0.054	0.268**	0.112	1.319**	0.429
LAC region	-	-	-	-	-	-
Leg_british	0.179**	0.095	-0.043	0.183	0.760	0.489
Leg_french	0.430***	0.086	0.119	0.145	1.680***	0.325
Leg_socialist	-	-	-	-	-	-
Leg_german	-	-	-	-	-	-
Leg_scandivanian	-	-	-	-	-	-
Constant	-3.463***	0.768	-3.259***	1.077	-4.545	3.227

*Note: * (**; ***) indicate statistical significance at the 10% (5%; 1%) level, respectively.*

Table 3.4: OLS estimator's results – High-income countries sample

Independent variables	Structure-activity		Structure - size		Structure-efficiency	
	Coef.	Standard error	Coef.	Standard error	Coef.	Standard error
Exports/GDP	-1.198***	0.288	-0.734***	0.182	-5.676	3.484
Imports/GDP	-1.379**	0.650	-1.196***	0.296	-3.795	3.372
FDI/GDP	0.056**	0.026	0.042***	0.016	-0.022	0.062
Trade concentration index	-0.433	0.408	-0.851**	0.304	3.077***	0.930
Trade diversification index	0.403	0.521	1.020***	0.405	1.248	1.267
MFN	-0.002	0.010	0.004	0.007	0.026	0.021
Actual economic flow index	0.002	0.002	-0.001	0.002	-0.007	0.010
Social global index	0.004	0.003	0.007***	0.002	0.016*	0.009
Political globalization index	-0.009**	0.004	-0.002	0.003	-0.011	0.008
KAOPEN	-0.059***	0.028	0.006	0.018	-0.039	0.049
GDP per capita	0.615***	0.145	0.602***	0.096	0.623**	0.304
GDPper^2	-2.705**	1.600	-2.548*	1.332	-2.002**	0.910
Growth rate	0.070***	0.015	0.093***	0.019	0.132**	0.057
Population	0.287***	0.055	0.176***	0.038	0.675***	0.084
Inflation	-0.271**	0.147	-0.142	0.123	-0.630*	0.355
Area	0.055**	0.026	0.010	0.024	0.040	0.062
Exchange rate difference	-0.008	0.012	0.070***	0.008	-0.104	0.061
Government quality	-0.065	0.079	-0.011	0.053	-0.224	0.246
Political Durability	0.005***	0.001	0.002*	0.001	0.002	0.003
Constraints on the executive	0.111	0.079	-0.050	0.057	0.450	0.247
Democracy index	-0.017	0.025	0.015	0.021	-0.060	0.069
Banking development	0.887***	0.247	0.342	0.246	1.827**	0.762
Market development	-0.575**	0.252	0.137	0.214	-0.997*	0.516
EAP region	0.348	0.261	-0.590**	0.219	2.474***	0.539
EECA region	-0.790***	0.232	-0.959***	0.206	-0.256	0.597
MENA region	0.346	0.203	-0.232	0.165	0.969**	0.406
SA region	-	-	-	-	-	-
WE region	-0.050	0.199	-0.690***	0.157	1.208**	0.442
NA region	-0.161	0.266	-0.808***	0.222	1.227**	0.596
SSA region	-0.425	0.351	-0.601***	0.237	-	-
LAC region	-	-	-	-	-	-
Leg_british	-0.937***	0.152	-0.427***	0.154	-1.556***	0.416
Leg_french	-0.492***	0.098	-0.345***	0.100	-0.796	0.305
Leg_socialist	-	-	-	-	-	-
Leg_german	-0.622***	0.131	-0.474***	0.136	-1.396	0.305
Leg_scandivanian	-	-	-	-	-	-
OECD country	-0.323**	0.160	-0.177	0.110	0.225	0.413
Constant	-6.018***	1.790	-3.455**	1.238	-20.524	4.572

*Note: * (**; ***) indicate statistical significance at the 10% (5%; 1%) level, respectively.*

Table 4: Synthesis of empirical results

Independent variables	Impacts of independent variables on financial structure														
	Full sample			LI countries			LMI countries			UMI countries			HI countries		
	SA	SS	SE	SA	SS	SE	SA	SS	SE	SA	SS	SE	SA	SS	SE
Exports/GDP	N	Y/(-)	N	N	N	N	N	N	N	N	Y/(-)	Y/(-)	Y/(-)	Y/(-)	N
Imports/GDP	N	Y/(-)	Y/(+)	N	N	N	N	N	N	N	Y/(-)	N	Y/(-)	Y/(-)	N
FDI/GDP	Y/(+)	Y/(+)	N	N	N	N	N	N	N	Y/(+)	Y/(+)	Y/(+)	Y/(+)	Y/(+)	N
Trade concentration index	N	Y/(-)	N	N	N	N	N	N	N	Y/(-)	Y/(-)	Y/(-)	N	Y/(-)	Y/(+)
Trade diversification index	N	N	N	N	N	N	Y/(-)	N	N	N	N	N	N	Y/(+)	N
MFN	Y/(-)	Y/(-)	Y/(-)	Y/(-)	N	Y/(-)	Y/(-)	Y/(-)	Y/(-)	N	N	N	N	N	N
Actual economic flow index	N	N	N	N	N	N	N	N	Y/(-)	N	N	Y/(+)	N	N	N
Social global index	Y/(+)	N	N	N	N	N	Y/(+)	N	Y/(+)	N	N	Y/(+)	N	Y/(+)	Y/(+)
Political globalization index	N	N	N	N	N	N	Y/(+)	N	N	N	N	Y/(+)	Y/(-)	N	N
KAOPEN	N	Y/(+)	N	N	Y/(-)	N	Y/(+)	Y/(+)	N	N	Y/(+)	N	Y/(-)	N	N
GDP per capita	Y/(+)	Y/(+)	Y/(+)	N	N	N	Y/(+)	Y/(+)	Y/(+)	Y/(+)	Y/(+)	Y/(+)	Y/(+)	Y/(+)	Y/(+)
GDPper^2	Y/(-)	Y/(-)	Y/(-)	N	N	N	Y/(-)	Y/(-)	Y/(-)	Y/(-)	Y/(-)	Y/(-)	Y/(-)	Y/(-)	Y/(-)
Growth rate	Y/(+)	Y/(+)	Y/(+)	N	N	N	Y/(+)	Y/(+)	Y/(+)	Y/(+)	Y/(+)	Y/(+)	Y/(+)	Y/(+)	Y/(+)
Population	Y/(+)	Y/(+)	Y/(+)	N	N	N	Y/(+)	N	Y/(+)	Y/(+)	Y/(+)	Y/(+)	Y/(+)	Y/(+)	Y/(+)
Inflation	N	N	N	N	N	N	N	N	N	N	N	N	Y/(-)	Y/(-)	Y/(-)
Area	N	N	N	N	N	N	Y/(+)	Y/(+)	N	N	N	N	Y/(+)	N	N
Exchange rate difference	Y/(-)	N	N	N	N	N	N	N	Y/(-)	N	N	N	N	N	N
Government quality	N	Y/(+)	Y/(-)	Y/(-)	Y/(-)	N	N	N	N	N	Y/(+)	Y/(+)	N	N	N
Political Durability	N	N	N	N	N	N	Y/(-)	N	Y/(-)	N	N	N	Y/(+)	N	N
Constraints on the executive	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Democracy index	N	N	N	N	Y/(+)	N	N	N	Y/(-)	N	N	N	N	N	N
Banking development	N	N	Y/(+)	N	N	N	Y/(+)	Y/(+)	Y/(+)	Y/(-)	Y/(-)	N	Y/(+)	Y/(+)	N
Market development	N	Y/(+)	N	N	Y(+)	N	Y/(+)	Y/(+)	Y/(+)	Y/(+)	Y/(+)	N	Y/(-)	N	Y/(-)
Regional dummies	Y	Y	N	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y
Income level dummies	Y	N	N	-	-	-	-	-	-	-	-	-	-	-	-
Legal origin dummies	Y	Y	Y	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N

***Notes**: Y: Confirmed impact; N: No impact; (+): Positive impact; (-): Negative impact*

Table 5: OLS estimator's results – Full sample (Low-income countries excluded)

Independent variables	Structure-activity		Structure - size		Structure-efficiency	
	Coef.	Standard error	Coef.	Standard error	Coef.	Standard error
Exports/GDP	-0.247	0.167	-0.211*	0.115	0.457	0.451
Imports/GDP	-0.356	0.333	-0.624***	0.170	-1.009*	0.601
FDI/GDP	0.055***	0.019	0.041***	0.014	0.628*	0.037
Trade concentration index	-0.203*	0.119	-0.364**	0.152	-0.500	0.459
Trade diversification index	0.272	0.223	0.557**	0.269	0.617	0.688
MFN	-0.007**	0.003	-0.004**	0.002	-0.010**	0.005
Actual economic flow index	0.000	0.001	0.001	0.001	0.006	0.005
Social global index	0.006***	0.002	0.003	0.002	0.012	0.007
Political globalization index	-0.001	0.001	0.001	0.001	-0.002	0.003
KAOPEN	-0.014	0.011	0.024**	0.011	-0.005	0.028
GDP per capita	105.687**	51.212	213.054**	106.164	498.811*	283.786
GDPper²	-72.787**	35.585	-106.498**	53.060	-249.097**	121.749
Growth rate	0.045***	0.008	0.047**	0.017	0.079**	0.030
Population	0.132***	0.025	0.154***	0.029	0.386***	0.087
Inflation	0.007**	0.039	0.004	0.046	0.000	0.129
Area	0.009	0.015	-0.004	0.020	0.015	0.061
Exchange rate difference	-0.012**	0.005	0.007	0.009	-0.005	0.015
Government quality	0.000	0.000	0.000*	0.000	0.000*	0.000
Political Durability	0.001	0.001	0.000	0.001	-0.003	0.003
Constraints on the executive	0.000	0.000	-0.001	0.001	0.001	0.001
Democracy index	-0.005	0.006	0.009**	0.004	-0.019	0.017
Banking development	-0.094	0.145	-0.264	0.182	1.226**	0.520
Market development	0.075	0.139	0.475**	0.155	0.348	0.475
EAP region	-0.149	0.134	-0.060	0.093	0.445	0.392
EECA region	0.052	0.178	-0.032	0.094	0.241	0.507
MENA region	-0.184	0.138	0.144	0.109	0.099	0.378
SA region	0.220	0.179	0.036	0.050	0.271*	0.145
WE region	-0.245	0.155	-0.106	0.131	-0.024	0.507
NA region	-0.318**	0.152	-0.336**	0.139	-0.315	0.458
SSA region	-0.139	0.120	0.060	0.062	0.100	0.180
LAC region	-0.260**	0.131	-0.040	0.097	-0.428	0.253
LMI country	0.054	0.076	0.363**	0.115	0.321	0.241
UMI country	0.074	0.114	0.487***	0.163	0.880**	0.384
OECD	-0.085	0.212	0.242	0.226	0.656	0.689
Non-OECD	0.140	0.181	0.515**	0.261	1.239	0.796
Leg_british	-0.322**	0.129	-0.178	0.120	-0.829**	0.404
Leg_french	-0.246**	0.124	-0.286**	0.107	-0.855**	0.361
Leg_socialist	-0.663***	0.208	-0.347**	0.159	-0.873	0.612
Leg_german	-0.207	0.160	-0.394**	0.150	-1.044**	0.402
Leg_scandivanian	-	-	-	-	-	-
Constant	-3.269***	0.772	-3.780***	0.959	-11.365***	3.460

*Note: * (**; ***) indicate statistical significance at the 10% (5%; 1%) level, respectively.*

Table 6.1: IV estimator's results (Openness terms instrumented) – Full sample

Independent variables	Structure-activity		Structure - size		Structure - efficiency	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
Exports/GDP	-0.623***	0.105	-0.046***	0.002	-0.856	4.686
Imports/GDP	-0.532***	0.100	-0.444***	0.110	-0.793	4.698
FDI/GDP	0.159***	0.037	0.062**	0.030	0.037**	0.015
Actual economic flow index	0.001	0.006	-0.030	0.024	-0.075	0.074
Social global index	0.009***	0.002	0.019***	0.006	0.028**	0.012
Political globalization index	0.000	0.001	0.000	0.003	-0.005	0.008
GDP per capita	10.863**	4.230	10.748***	3.004	9.903**	3.854
GDPper^2	-5.483**	2.112	-6.240***	0.063	-4.373**	0.140
Growth rate	0.512***	0.036	0.274*	0.139	0.600**	0.290
Population	0.061***	0.012	0.032	0.048	0.162*	0.089
Inflation	-0.064*	0.036	0.203	0.141	0.306	0.438
Area	0.019	0.013	0.016	0.053	0.167	0.142
Exchange rate difference	-0.106***	0.007	-0.029	0.028	-0.064	0.050
Government quality	0.000	0.000	0.000*	0.000	0.000*	0.000
Political Durability	0.000	0.000	-0.001	0.001	-0.005	0.003
Contraints on the executive	0.000	0.001	-0.003	0.002	-0.004	0.008
Democracy index	-0.003	0.002	-0.007	0.008	-0.022	0.024
Banking development	-0.067	0.071	-0.130	0.278	1.883**	0.780
Market development	0.150**	0.059	0.644**	0.231	0.797	0.419
EAP region	0.074	0.184	-0.374	0.725	0.060	1.453
EECA region	0.228	0.187	-0.249	0.737	0.034	1.400
MENA region	-0.069	0.186	-0.309	0.731	-0.363	1.449
SA region	0.258	0.185	-0.300	0.726	0.271	1.402
WE region	-0.040	0.199	-0.777	0.783	-1.012	1.748
NA region	-0.176	0.194	-0.655	0.764	-0.622	1.537
SSA region	-0.056	0.187	-0.492	0.734	-0.835	1.440
LAC region	-0.268	0.204	-0.864	0.803	-1.741	1.656
Low-income country	0.103	0.128	-0.732	0.502	-1.393	1.235
Lower middle-income country	0.028	0.064	-0.103	0.252	-0.933	0.538
Upper middle-income country	0.004	0.051	0.125	0.199	-0.103	0.391
OECD	-0.439***	0.059	-0.136	0.231	-0.049	0.770
Non-OECD	-	-	-	-	-	-
Leg_british	-0.249***	0.048	-0.247	0.188	-1.058**	0.533
Leg_french	-0.195***	0.042	-0.311**	0.164	-0.958***	0.373
Leg_socialist	-0.718***	0.167	-1.477***	0.653	-2.982**	1.981
Leg_german	-0.125	0.077	0.126	0.301	-0.208	0.653
Leg_scandivanian	-	-	-	-	-	-
Constant	-2.949**	0.959	3.263	3.764	-3.767	9.076
Cragg-Donald Wald F-statistic	13.917		13.917		14.674	
F-statistic	(13.43)[a]		(13.43)[a]		(13.43)[a]	
P-value of Sargan test	[1.000]		[1.000]		[1.000]	

*Notes: Values in brackets are P-values. Values in parentheses are robust standard errors. ***. **. *: Significant at 1 percent, 5 percent, 10 percent level, respectively. ()[a]. Critical value of 15 percent maximal IV size proposed by Stock and Yogo (2002).*

Table 6.2: IV estimator's results (Financial development instrumented) – Full sample

Independent variables	Structure-activity		Structure-size		Structure-efficiency	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
Banking development	-0.804***	0.173	-1.533***	0.188	-1.178***	0.496
Market development	1.704***	0.159	1.183***	0.172	1.169**	0.498
Exports/GDP	-0.377***	0.093	-0.370***	0.102	0.000	0.387
Imports/GDP	-0.483***	0.140	-0.983***	0.152	0.785	0.515
FDI/GDP	0.030**	0.011	0.044***	0.012	0.045***	0.016
Trade concentration index	-0.213***	0.063	-0.518***	0.069	-0.464**	0.230
Trade diversification index	0.367**	0.110	0.694***	0.120	0.313	0.409
MFN	-0.002**	0.001	-0.002**	0.001	-0.002**	0.001
KAOPEN	-0.022	0.007	0.034	0.007	0.030	0.020
Actual economic flow index	-0.001	0.001	0.005	0.001	-0.006	0.002
Social global index	0.004***	0.001	0.006***	0.001	0.018***	0.003
Political globalization index	0.003***	0.001	0.001	0.001	0.002	0.002
GDP per capita	8.560***	1.022	8.009***	2.442	9.374***	1.204
GDPper^2	-3.003***	0.011	-3.032***	0.012	-4.476***	0.040
Growth rate	0.049***	0.010	0.033***	0.011	0.102***	0.033
Population	0.017	0.011	0.114	0.012	0.237	0.036
Inflation	-0.047	0.029	0.143	0.031	0.153	0.098
Area	0.025	0.007	-0.009	0.007	0.106	0.021
Exchange rate difference	-0.001	0.004	0.005	0.004	-0.027**	0.013
Government quality	0.000	0.000	0.000	0.000	0.000	0.000
Political Durability	0.000	0.000	0.000	0.000	-0.003	0.001
Contraints on the executive	0.000	0.001	-0.001	0.001	0.000	0.002
Democracy index	-0.002*	0.001	0.005***	0.001	0.005	0.004
EAP region	0.022	0.192	-0.213	0.209	0.455	0.575
EECA region	-0.031	0.193	-0.293	0.210	-0.058	0.578
MENA region	0.076	0.192	-0.144	0.208	0.005	0.575
SA region	0.168	0.194	-0.188	0.211	0.202	0.581
WE region	0.371	0.197	-0.176	0.214	0.227	0.597
NA region	-0.417**	0.204	-0.479**	0.221	-0.482	0.619
SSA region	-0.119	0.191	-0.253	0.208	-0.533	0.572
LAC region	-0.020	0.193	-0.306	0.209	-0.800	0.578
Low-income country	0.096	0.073	-0.428	0.079	-0.554	0.241
Lower middle-income country	-0.050	0.058	-0.315	0.063	-1.226	0.188
Upper middle-income country	0.035	0.053	-0.226	0.058	-0.602	0.168
OECD	-0.215***	0.050	-0.427***	0.054	-0.734***	0.154
Leg_british	-0.159**	0.060	-0.076	0.075	-0.316	0.283
Leg_french	-0.141**	0.059	-0.216**	0.072	-0.589***	0.246
Leg_socialist	-0.295	0.186	-0.464**	0.230	0.479	0.819
Leg_german	-0.221***	0.066	-0.159*	0.082	-1.759***	0.375
Constant	-1.418	0.398	-2.312	0.433	-8.165	1.356
Cragg-Donald Wald F-statistic	49.19		49.19		37.717	
F-statistic	(7.56)[a]		(7.56)[a]		(7.56)[a]	
P-value of Sargan test	[1.000]		[1.000]		[1.000]	

*Notes: Values in brackets are P-values. Values in parentheses are robust standard errors. ***, **, *: Significant at 1 percent, 5 percent, 10 percent level, respectively. ()[a], Critical value of 15 percent maximal IV size proposed by Stock and Yogo (2002).*

Figure 1: Financial structure vs. Trade openness

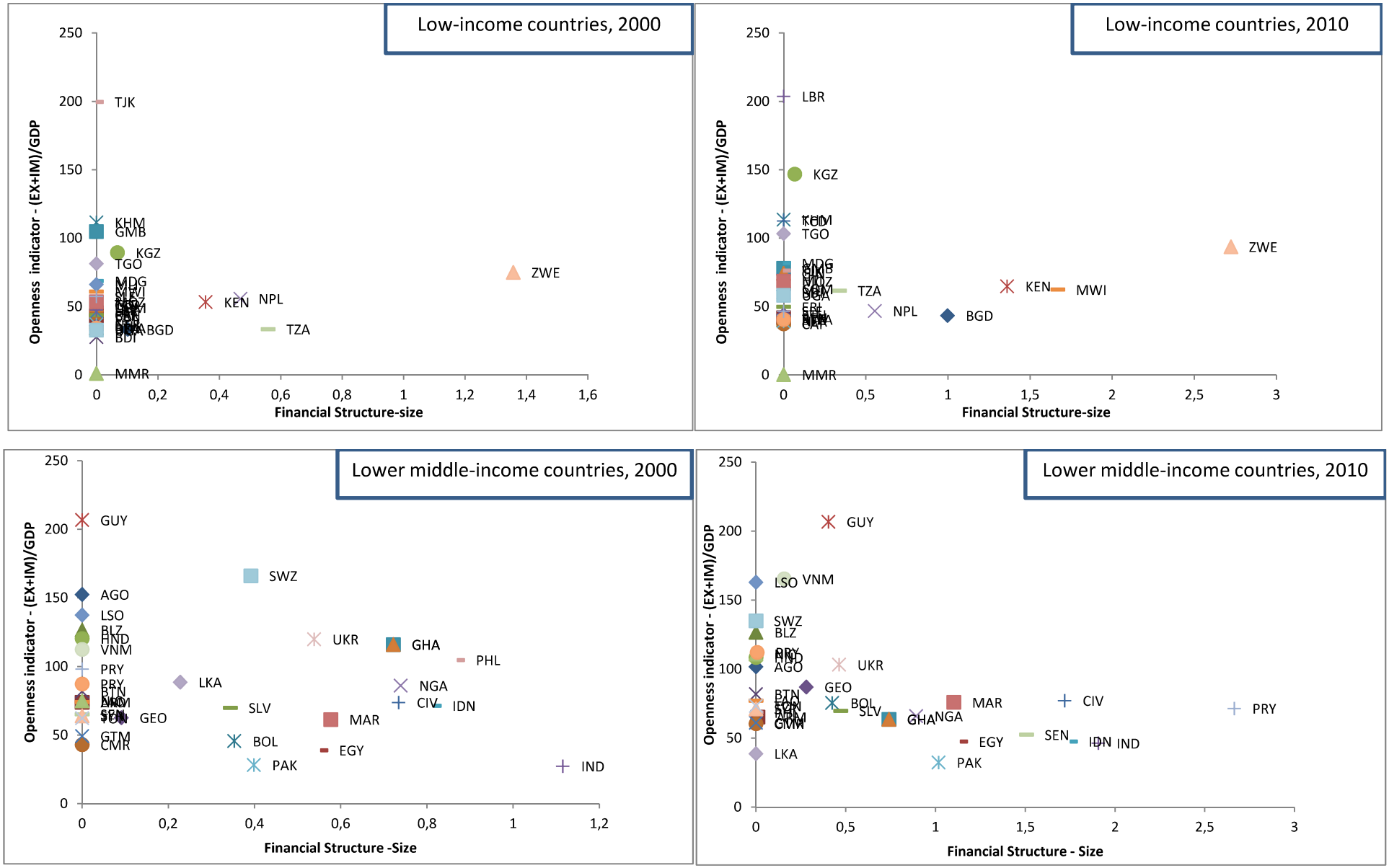

Figure 1: Financial structure vs. Trade openness (con't)